

## THAT WHICH IS CLAIMED:

1. An elastomeric expansion joint comprising:
  - at least one first substrate;
  - at least one second substrate;
  - 5 fabric layers arranged between the first and the second substrates, defining a tubular section, wherein:
    - the tubular section comprises:
      - first and second end portions,
      - a moveable central region, and
      - 10 first and second intersection portions which are respectively defined between each of the end portions and the central region, and
      - the intersection portions and the end portions define a reinforcement section;
      - a first reinforcement wiring positioned in the reinforcement section;
      - 15 a second reinforcement wiring positioned between the first and second substrates in the intersection portions; and
      - at least one wiring support member positioned between the first and the second substrates, wherein the wiring support member:
        - is positioned in the reinforcement section,
        - 20 extends at least partially around a central axis of the tubular section, and
        - supports at least the first reinforcement wiring along its length.
2. An elastomeric expansion joint according to claim 1, wherein the  
25 wiring support member comprises a first wiring support member, the first wiring support member comprises a base and retention walls, the retention walls define a retention region therebetween, and the first reinforcement wiring is positioned in the retention region.
- 30 3. An elastomeric expansion joint according to claim 2, wherein the base of the first wiring support member is positioned parallel to the first and second substrates, with the retention region facing the second substrate.

4. An elastomeric expansion joint according to claim 3, wherein the wiring support member supports a plurality of overlapping layers of the first reinforcement wiring.

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5. An elastomeric expansion joint according to claim 4, wherein the plurality of layers of the first reinforcement wiring is arranged in the retention region up to terminuses of the retention walls.

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6. An elastomeric expansion joint according to claim 5, wherein second wiring support members are respectively positioned in the first and second intersection portions.

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7. An elastomeric expansion joint according to claim 6, wherein each of the second wiring support members comprises retention walls defining a retention region therebetween, with the second reinforcement wiring positioned in the retention regions of the second wiring support members.

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8. An elastomeric expansion joint according to claim 7, wherein for each of the second wiring support members, the retention walls of the second wiring support member are arched over the retention region so that the retention region is closed.

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9. An elastomeric expansion joint according to claim 8, wherein each of the second wiring support members is substantially tubular.

10. An elastomeric expansion joint according to claim 9, wherein at least one fabric layer envelopes the second reinforcement wiring.

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11. An elastomeric expansion joint according to claim 10, wherein the first and second wiring support members are made of a rigid material.

12. An elastomeric expansion joint according to claim 10, wherein the

first and second wiring support members are made of a metallic material.

13. An elastomeric expansion joint according to claim 12, wherein there are at least two first wiring support members and two second wiring support members.

14. An elastomeric expansion joint according to claim 13, wherein the first and second reinforcement wirings are composed of flexible metal wires.

15. An elastomeric expansion joint according to claim 1, wherein the end portions respectively end in retaining rings.

16. An elastomeric expansion joint according to claim 1, wherein the first and the second substrates are made of a polymeric material.

17. An elastomeric expansion joint according to claim 1, wherein a polytetrafluorethylene layer is provided overlapping a surface of the second substrate and a surface of the first substrate.

18. A method of manufacturing an elastomeric expansion joint, comprising the steps of:

molding a first substrate, with the molding of the first substrate including defining a central moveable region, two end portions and two intersection portions;

placing fabric layers on the first substrate;

placing first wiring support members respectively along the end portions on the fabrics, with the first wiring support members each comprising a base and retention walls, and the retention walls respectively configuring retention regions;

supporting first reinforcement wiring on the first wiring support members, including winding the first reinforcement wiring in the retention regions;

winding a second reinforcement wiring in the intersection portions;

placing a second substrate layer; and

vulcanizing the elastomeric expansion joint.

19. A method according to claim 18, wherein in the step of winding the first reinforcement wiring in the retention regions includes winding the first reinforcement wiring up to terminuses of the retention walls of the first wiring support members.

20. A method according to claim 18, further comprising respectively positioning second wiring support members in the intersection portions after the step of placing the first wiring support members, wherein the step of winding the second reinforcement wiring in the intersection portions includes winding the second reinforcement wiring on the second wiring support members.

21. A method according to claim 20, wherein the winding of the second reinforcement wiring on the second wiring support members includes winding the second reinforcement wiring in retention regions of the second wiring support members.

22. A method according to claim 21, wherein after winding the second reinforcement wiring on the second wiring support members, the second wiring support members are closed.

23. A method according to claim 22, wherein after the vulcanizing, retaining rings are respectively placed at the ends of the elastomeric expansion joint.

24. A method according to claim 23, wherein the retaining rings are respectively fixed by way of fixtures.

25. A wiring support member for supporting reinforcement wiring and reinforcing an elastomeric expansion joint, the wiring support member comprising:

a substantially annular body having retention walls for at least partially facilitating lengthwise winding of the reinforcement wiring around the wiring support member.

- 5            26. A wiring support member according to claim 25, wherein the annular body further comprises a base from which the retention walls extend radially outward, wherein a retention region is at least partially defined between the retention walls, and the retention region is for receiving the reinforcement wiring.

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27. A wiring support member according to claim 26, wherein a cross-section of the wiring support member is substantially U-shaped, with the cross-section being taken along a plane which is parallel to and intersects an axis which the wiring support member extends around.

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